DOCUMENT RESUME

ED 197 663 HE 013 437

AUTHOR Lester, Patricia: Chu, Lily
TITLE Personality Factors and Achievement Motivation of Women in Higher Education Administration.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE 80
GRANT NIE-G-79-0012
NOTE 25p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Achievement Need: *Administrator Attitudes: Administrator Characteristics: Administrator Role: Administrators: *College Administration: Comparative Analysis: *Females: Feminism: Higher Education: Leadership Styles: Males: Motivation: Psychological Characteristics: Role Perception: *Self Concept: *Sex Role: Student Attitudes: Teacher Attitudes
IDENTIFIERS New Mexico: Texas

ABSTRACT

Female and male higher education administrators in Texas and New Mexico were compared in terms of their sex role orientation, motivational factors, and administrative styles. In addition to individual interviews of the 68 administrators, a questionnaire was developed that included items from the Bem Sex Role Inventory, Work and Family Orientation Questionnaire (a measurement of motivation), Texas Social Behavior Inventory (a measurement of self-concept), and Attitudes Toward Women Scale (a measurement of profeminist attitudes). For comparison purposes, the same instrument was administered to 111 undergraduate students and 69 public school teachers. The results show that women administrators in higher education are not necessarily less feminine than other women, rather, they seem to have incorporated additional masculine traits, such as self-reliance, achievement motivation, and assertiveness in order to succeed in their nontraditional roles. Female higher education administrators differ drastically from female teachers and students in that they scored higher on masculinity, self-concept, socially desirable traits, and some dimensions of achievement motivation (i.e., work and mastery), but not on other dimensions (i.e., competitiveness and personal unconcern). There was little or no discrepancy between female and male administrators regarding their perceptions of their work roles, the qualifications needed, difficulties and satisfactions encountered, and how they became involved in higher education administration. Female administrators tended to be younger, less educated, single and less likely to have children than male administrators. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED197663

Personality Factors and Achievement Motivation of Women in Higher Education Administration

Patricia Lester

and

Lily Chu

New Mexico State University

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Lily Chu

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

HE 013 434

PERSONALITY FACTORS AND ACHIEVEMENT MOTIVATION OF WOMEN

IN HIGHER EDUCATION ADMINISTRATION

A popular myth contends that women are not suited to administrative roles (11). Women are stereotyped as being less objective, less independent, less logical, less assertive, less ambitious, and less competent than men. Young (23) points out several other popular misconceptions concerning women in administration: (a) Women do not have the education and credentials required for administrative positions; (b) women do not aspire to administrative positions; (c) women are more committed to their roles as wives and mothers than to their professional roles; and (d) women do not have to work—their jobs merely provide second incomes for their families.

These common stereotypes have been used to relegate women to subordinate positions in educational institutions while men are promoted to the administrative ranks. Fishel and Pottker (10) point out that women make up two-thirds of the teachers in public schools, but constitute only 19.6% of the elementary school principals, 1.4% of the secondary principals, and .1% of the superintendents. Cronin and Pancrazio (9) surveyed 40 states and found the mean percentage of women administrators to be 18.3%.

Women in higher education do not seem to fare any better; in fact, the situation may be even worse. Gordon and Ball (13) state that institutions are doing little to train, recruit, and promote women into administrative positions. Oltman (17) found that women are "conspicuously lacking" in policy-making positions in colleges and universities. There are, however, more opportunities for women administrators in women's colleges and small or private colleges than in large and public institutions. The study went on to show that women administrators tend to be employed in positions requiring specific skills and attention to

detail; thus, women are more likely to hold positions as head librarian, director of placement, director of financial aid, or college counselor. While 90% of the colleges and universities surveyed stated that their promotional policies we e the same for men and women, the women were underrepresented as department chairmen. In fact, 34 institutions admitted that no women were heads of academic departments. In schools where women did hold academic chairmanships, they tended to be in the fields of home economics, physical education, English, languages, nursing, and education. In a study of state universities and land grant colleges, Arter (1) discovered that over one-half of the institutions did not have women in top-level administrative positions.

While the majority of women in education will never become administrators, a few women have broken into that male-dominated world. These women have been stereotyped as being aggressive, masculine, and anti-feminist, but are they really less feminine than women in non-administrative careers?

Traditionally, masculinity and femininity have been conceptualized as being bipolar opposites of a single continuum. Bakan (?) suggested that individuals are characterized by agency and communion. Agency, being masculine, refers to self-assertion, self-protection, and self-expansion; communion, being feminine, refers to openness, cooperation, and nurturance. Parsons and Bales (18) suggest similar components as instrumental and expressive. Thus, a person is either agentic or communal, instrumental or expressive, masculine or feminine, but not both. Recently a new perspective has emerged in the psychological literature. Masculinity and femininity are conceptualized as separate dimensions that can vary independently. From this concept has emerged androgyny which denotes the integration of masculine and feminine traits in one person (3, 4, 5, 6, 7, 8, 12, 19, and 20). The concept of androgyny implies that an individual can be both assertive and expressive, both masculine and feminine depending upon the situation.

Bem (4) found androgynous subjects to be able to vary their behavior depending upon its situational appropriateness. Androgynous subjects displayed independence when encountering pressure to conform and nurturance when given the opportunity to play with a kitten. Similarly, Bem, Martyna and Watson (8) found feminine and androgynous subjects to be more nurturant than masculine subjects. Bem and Lenney (7) showed that sex-typed subjects preferred sex-appropriate activities and experienced the most psychological discomfort when performing sex-inappropriate activities. These studies suggest that androgynous individuals are more flexible in their behavior patterns.

Spence and Helmreich (19) have applied the concept of androgyny to the problem of assessing achievement motivation in women. They found androgynous individuals showed the highest levels of achievement motivation. In a similar study of female athletes, Harris and Jennings (14) concluded that androgynous and masculine individuals were more achievement oriented than feminine or undifferentiated (those scoring low on both masculinity and femininity) individuals.

Both Bem (7) and Marecek (15) have argued that androgyny is the most appropriate sexual role, particularly for women, in a society where women are becoming liberated and are assuming non-traditional roles. Welch (22) found support for this position. Similarly, McBee, Murray and Suddick (16) concluded that women in non-traditional, masculine-stereotyped activities have higher self-esteem than women in more traditional, feminine roles. Spence, Helmreich and Stapp (21) also found that androgynous individuals scored higher in self-esteem than masculine, feminine, or undifferentiated individuals.

The present study was designed to test the hypothesis that women administrators in higher education, being in non-traditional female roles, will tend to be androgynous, i.e., they will tend to be high in both masculine and feminine traits.

Methods

The sample consisted of 68 female and male administrators at New Mexico State University and the University of Texas at El Paso. Thirty-six women administrators were identified. The women occupied full-time positions at the two universities and were involved in various tasks of administration, i.e., planning, organizing, staffing, directing, coordinating, reporting, and budgeting. Thirty-four of the 36 women administrators agreed to participate in the study. The 34 male administrators who participated in the study were randomly selected from those who held positions similar to the female respondents. Every effort was made to match the two groups according to their positions; this was not always possible since female administrators tended to have lower positions within the given rank as compared to male administrators. For example, although there were four male and four female deans in the sample, most women were associate and assistant deans. Table 1 shows the current administrative titles of the male and female respondents.

Insert Table 1 about here

Each of the 68 administrators were interviewed individually. During the 15- to 30-minute structured interviews, respondents were asked questions concerning the length of time they had held their present positions; why and how they became administrators; the most satisfying and problematic aspects of their positions; the qualifications which they felt were necessary for a successful administrator; and their perceptions of sexual discrimination in administration.

A questionnaire was developed which included items from the Bem Sex Role Inventory (BSRI), Work and Family Orientation Questionnaire (WOFO), Texas Social Behavior Inventory (SBI), and Attitudes Toward Women Scale (AWS). The questionnaire

was administered to the 68 administrators. In order to provide a comparison, the same instrument was given to a group of students and public school educators who were enrolled in undergraduate and graduate education and psychology classes at New Mexico State University during the summer term. The group consisted of 111 students (39 men and 72 women), 69 public school teachers (15 men and 54 women), and 13 public school administrators (5 men and 8 women).

The BSRI (3) contains three scales: (a) masculinity scale (MAS); (b) femininity scale (FEM); and (c) social desirability scale (SOD). The masculinity and femininity scales were developed on the assumption that a sex-typed person is "someone who has internalized society's sex-typed standards of desirable behavior for men and women" (3, p. 155). A person is defined as masculine, feminine, androgynous, or undifferentiated on the basis of a median split (5). Thus, a person whose masculinity score is high and whose femininity score is low is designated as masculine, and a person whose femininity score is high and whose masculinity score is low is said to be feminine. An androgynous person is one who scores high on both masculinity and femininity scales. Similarly, a person is said to be undifferentiated if his/her scores on both masculinity and femininity scales are low. The social desirability scale is neutral with regard to sex and serves primarily to provide a neutral context for the socially desirable traits such as helpful, reliable, and conscientious.

The WOFO (19) was designed to measure achievement motivation and has four subcomponent scales. They are (a) work (W)--the desire to work hard and keep busy; (b) mastery (M)--the desire to cope with challenging tasks and to meet inner standards of excellence; (c) competitiveness (C)--a desire to win over other people; and (d) personal unconcern (PU)--being unconcerned with others' negative reactions to one's achievement. The SBI (19) is essentially a measure of self-esteem. The AWS (19) measures one's belief concerning the appropriate roles

for women and a higher score indicates a more pro-feminist stance.

Results

Demographic Information of Higher Education Administrators

As would be expected, the female administrators tended to be younger than the male administrators. Thirty-five percent of the women administrators were under 40 years of age as compared to only 15% of the men. Half of the male administrators were between 40 and 50 years of age.

Women administrators also tended to have fewer academic degrees than their male counterparts. Of the women administrators, 14.7% had a bachelor's degree or less; 47.1% had a master's degree; and 38.2% had a doctorate. More than one-half (52.9%) of the male administrators, on the other hand, had earned a doctorate; 41.2% had a master's degree; and only 5.8% had a bachelor's degree or less.

The male administrators were more likely than the female administrators to be married: 88.2% of the men were married; 2.9% were single; and 8.8% were separated or divorced. In comparison, 41.2% of the women were married; 41.2% were single; and 17.6% were separated or divorced. The majority of the male respondents (91.2%) had children whereas approximately half of the women (55.9%) had children.

Content Analysis of Higher Education Administrators' Responses in Interview

Most of the administrators (61.8% of the men and 64.7% of the women) obtained their positions through promotion or were solicited rather than actively seeking the positions. Half of the women indicated the reason for their becoming administrators was the administrative task itself, i.e., they wanted to organize and direct activities, to affect change within the organization, or to implement a program. Some 38.2% of the women indicated they became administrators simply because they had the opportunity. Status and financial reasons tended to be low priorities for the women administrators: 8.8% said status was the reason for

their becoming administrators and 2.9% said money was the reason. In comparison, the men attributed their becoming administrators to the following reasons: (a) opportunity--47.1%; (b) administrative task--29.4%; (c) money--20.6%; and (d) status--2.9%.

A majority of the male administrators (73.5%) admitted that dealing with the "system," i.e., university bureaucracy, government regulations, budgeting, lack of time, etc., was the most problematic aspect of their jobs; whereas 52.9% of the women administrators indicated that they had problems dealing with the "system." Slightly more than half of the women administrators (63.6%) as compared to 47.1% of the men administrators, said that personnel was their biggest problem. Approximately 11.8% of the men and 10.3% of the women indicated that communications was a problem. Most men and women administrators agreed that the most satisfying aspect of their jobs was "getting things done." Approximately 52.9% of the male administrators and 58.8% of the female administrators indicated that they enjoyed mainly the task aspect of their administrative positions as compared to 47.1% of the men and 41.2% of the women who said they mainly enjoyed working with people.

The women administrators ranked personal characteristics such as patience, honesty, self-confidence, and dependability as the most important qualification for a successful administrator. Other qualifications, listed according to the frequency with which they were mentioned, were the ability to work with people, job expertise and training, the ability to organize, the ability to make decisions, communications skills, and problem-solving ability. The male administrators, on the other hand, tended to feel that the ability to work with people was the most important qualification for a successful administrator. Other characteristics were ranked as follows: personality, the ability to organize, job expertise and training, the ability to make decisions, communications skills, and problem-solving ability.

Women administrators were more likely to perceive the existence of sexual discrimination in the administration of the universities. More than half of the women (58.8%) indicated that they had encountered sexual discrimination in their positions and 47.1% of the men said that there was discrimination against women administrators. Approximately 41.2% of the male administrators and 38.2% of the female administrators felt there was no discrimination against women administrators. Six percent of the men felt that sexual discrimination would depend upon the individual women, and the remaining men and women administrators indicated they did not know whether there is discrimination against women administrators.

Analysis of Participants' Responses to the Questionnaire

Participants' MAS scores correlated positively with their ages, FEM, SOD, C, M, W, SBI, and AWS scores (rs = 0.21, 0.12, 0.31, 0.39, 0.47, 0.34, 0.50, 0.16, df = 259, all $p < 0.05$). Participants' FEM scores correlated positively only with their MAS, SOD, W scores, and negatively with C scores (rs = 0.12, 0.18, 0.11, -0.11, df = 259, all $p < 0.05$). SBI scores correlated positively with participants' ages, SOD, C, M, W, PU and AWS scores (rs = 0.12, 0.39, 0.21, 0.43, 0.34, 0.15, 0.11, df = 259, all $p < 0.05$). AWS scores correlated positively with M scores. The unmentioned correlations were all insignificant.

Due to the limited number of public school administrators (N = 13) in the present sample, they were excluded from the following analyses comparing college students, public school teachers and higher education (HE) administrators. Table 2 summarizes the means of participants in various scales according to groups (students, teachers, and HE administrators), and sex (males and females). Note the significant differences between sexes consistently appeared in all groups in FEM and AWS scales, indicating persistently higher femininity scores and pro-feminist attitudes in women as compared to men, whereas with the exception

of college students, there was no sex difference in regard to masculinity scores.

Insert Table 2 about here

Table 3 summarizes the means in MAS, FEM, SOD, SBI, AWS scales according to groups (students, teachers and HE administrators). HE administrators had higher MAS scores than the other two groups which did not differ ($F = 8.92$, $df = 2$, $p < 0.01$; also Tukey's LSD test). The same pattern was also found in regard to SOD and SBI scores. Teachers had higher FEM scores than the other two groups which did not differ ($F = 6.24$, $df = 2$, $p < 0.01$; also Tukey's LSD test). On AWS scale, teachers and HE administrators both had more pro-feminist scores than students ($F = 5.08$, $df = 2$, $p < 0.01$; also Tukey's LSD test). There were no significant differences in achievement motivation scores between groups.

Insert Table 3 about here

Among the male sample, the only significant difference found between students, teachers and HE administrators was on SOD scale, which showed that administrators scored higher ($\bar{X} = 5.51$) than teachers ($\bar{X} = 5.12$) and students ($\bar{X} = 4.98$) whereas the latter groups did not differ ($F = 12.72$, $df = 2$, $p < 0.01$; also Tukey's LSD test). On the contrary, among the female sample (see Table 4) many significant differences were found. Higher education administrators had higher MAS scores than students and teachers, whereas the latter groups did not differ ($F = 6.14$, $df = ?$ $p < 0.01$; also Tukey's LSD test). The same significant difference was found in regard to SOD, SBI, M, and W scales. On FEM scale, HE administrators scored lower than the other two groups which did not differ

($F = 3.82$, $df = 2$, $p < 0.05$; also Tukey's LSD test). On AWS scale, both HE administrators and teachers had similar and higher scores than that of students ($F = 4.25$, $df = 2$, $p < 0.05$; also Tukey's LSD test). There were no differences found in regard to C and PU scales.

Insert Table 4 about here

Because the present college student sample also included a number of graduate students who might have inflated the scores, the means of MAS and FEM for undergraduate students only were calculated; they were 4.95 and 4.70 respectively. The medians of MAS and FEM for undergraduates were 4.99 and 4.70 respectively. No change was found when male undergraduate students' MAS and FEM scores were compared with that of teachers and HE administrators, as contrasted with the previous comparisons based on all male students' scores. However, among the female sample, female HE administrators' FEM scores ($\bar{X} = 4.88$) did not differ from that of female undergraduates ($\bar{X} = 4.80$), although female HE administrators had lower FEM scores as compared to college students consisting of both under- and graduate students as reported earlier.

Analysis of Participants' Responses to Questionnaire According to Androgyny, Masculinity, Femininity and Undifferentiated Categories

The Stanford undergraduates' MAS and FEM medians (4.89 and 4.76) as reported by Bem (4) were used in the median split method to classify each of the 261 participants into one of the four categories: androgyny, masculinity, femininity, and undifferentiated. Androgynous and masculine participants had consistently higher scores than feminine and undifferentiated participants on SBI scale and on C, M, and W scales of achievement motivation, whereas no difference was found in regard to PU and AWS scales. Among the male sample, the four categories were

almost indistinguishable in most of the measurement scales; whereas among the female sample, identical pattern as found in the total sample emerged again. Female androgynous and masculine participants had consistently higher scores than the other two groups on SBI scale, and on C, M, and W scales. The only different pattern from the total sample was that female masculine participants had higher AWS scores and pro-feminist attitudes as compared to the other three groups.

Chi Square Analyses of Students, Teachers, and Higher Education Administrators in Androgyny, Masculine, Feminine, and Undifferentiated Categories

Higher education administrators tended to be more likely to be classified as masculine and less likely to be classified as feminine as compared to students and teachers ($\overline{X}^2 = 19.92$, $df = 6$, $p < 0.01$). Among the male sample no difference was found between groups in their distribution on the four categories ($\overline{X}^2 = 5.00$, $df = 6$, $p > 0.05$). Among the female sample, HE administrators tended to be classified as androgynous and masculine whereas students and teachers tended to be classified as feminine ($\overline{X} = 15.37$, $df = 6$, $p < 0.01$).

Discussion

The present findings support the concept propounded by Bem (3) and Spence and Helmreich (19) that masculinity and femininity are not bipolar opposites of a single continuum, rather two separate dimensions. A persistently moderate yet positive correlation was found between masculinity and femininity scores similar to what was reported by other researchers (19). Indeed, instrumentality need not be achieved at the expense of expressivity.

The results also tend to support the hypothesis that women administrators in higher education are not necessarily less feminine than other women, such as college undergraduate coeds. Rather than losing their femininity, women administrators may have incorporated additional masculine traits, such as self-reliance,

ambition, and assertiveness, in order to succeed in their non-traditional roles. Women administrators are more likely to be classified as androgynous or masculine whereas women teachers and students are more likely to be classified as feminine, which supports earlier findings on female scientists (19) and female varsity athletes (14, 19). Those previous studies using a different instrument, Personal Attributes Questionnaire, also found that women in non-traditional roles were not necessarily less feminine, but were more likely to be classified as androgynous or masculine and to exhibit higher levels of achievement motivation.

Female higher education administrators differ drastically from female teachers and students in many other significant ways. Compared to the other women, female administrators scored higher on masculinity, self-concept, socially desirable traits, and some dimensions of achievement motivation, i.e., work and mastery, but not on other dimensions, i.e., competitiveness and personal unconcern. This group of higher education administrators appears to be self-confident, socially adaptive women who are dedicated to work and concerned with competing with themselves for excellence rather than competing with other people.

Whereas female administrators differ significantly from female teachers and students, male administrators, on the other hand, tend to be indistinguishable from male teachers and students in their personality variables and achievement motivation, except that male administrators had higher scores in socially desirable traits. This finding is reminiscent of a similar study (19) which found that male scientists were almost identical to male students in their masculinity and femininity scores whereas female scientists differed drastically from female students.

It is interesting to note that female higher education administrators in the present study, although differing significantly from female teachers and students, are similar to male administrators in many dimensions measured except that female

administrators were more feminine and had stronger pro-feminist stance. Comparing male and female administrators' perceptions of their administrative roles, the qualifications needed, difficulties and satisfactions encountered, and how they became involved in higher education administration, again, one finds little or no discrepancy between the sexes. Female administrators, however, differ from male administrators in that they tend to be younger, less educated, single and less likely to have children. It seems that marriage and family enhances the career of male administrators, but not that of the female administrators. Perhaps non-traditional careers such as administration attract women who are disinterested in traditional female roles as mothers and wives. Another explanation may be that men are intimidated by career oriented women and do not perceive these women to be suitable marriage partners. It is also possible that in order to be successful in this non-traditional arena, these women administrators may have to make a compromise between career and family whereas no such compromise is needed for male administrators.

Indeed, the picture that emerges from the present data is that higher education administration is basically a man's world. A majority of male and female administrators recognize the existence of sex discrimination in higher education administration. Most women who have made it into this non-traditional world had to expand beyond the traditionally defined feminine boundaries and to adopt masculine attributes, thereby becoming flexible and androgynous. They are highly motivated, self-confident women, who have similar perceptions of administrative roles as men, concerned with excellence and dedicated to work, quite often at the expense of their family and marriage.

Within each of the administrator, teacher and student groups, women persistently showed stronger pro-feminist attitudes and higher femininity scores than men. Along with higher educational attainments, this group of women tends to be

career oriented and, therefore, is understandably biased toward a more liberated stance as compared to the general female population. This is further supported by the finding that female administrators and teachers tend to have stronger pro-feminist attitudes than female students. A general pattern which emerged from the comparisons of sexes within each of the three groups indicates a trend that as women become more career oriented, they become just as masculine as men, whereas men have not altered their sex-role orientation by becoming more feminine. Thus, male college students had higher masculine scores than female college students, but male teachers and administrators were not any more masculine than female teachers and administrators. Masculinity is found in the present study to correlate positively with achievement motivation, self-concept and attitudes toward the feminist movement, as also indicated in the previous studies (16, 19, 21). Femininity, on the contrary, is found to correlate with relatively few dimensions; it correlates positively only with socially desirable traits and work orientation, and negatively with competitiveness. It seems that masculinity, which is associated with such traits as aggressiveness and self-reliance, is more valued than femininity in our achievement-oriented society and is a stronger determinant of career development.

The concept of androgyny calls for the integration of masculine and feminine traits in a person. An androgynous person is one who can be both assertive and sensitive, agentic and communal, instrumental and expressive, and is flexible in exhibiting the situationally appropriate behavior. As women are becoming liberated and entering non-traditional careers, they are adopting many masculine-oriented behaviors and becoming androgynous. Men, on the other hand, tend <u>not</u> to be incorporating feminine traits into their personalities. Perhaps there is a need for society to place equal value on masculine and feminine traits which would create the need and the climate for both men and women to become androgynous.

Limitations

Clearly this study is limited, both in its limited number of higher education administrators sampled and the geographic location where the sample was taken. While the profiles may be descriptive of the male and female higher education administrators studied, further research with a broader sample is needed to extend our knowledge in terms of the roles and status of women higher education administrators in this changing era.

Table 1

Administrative Title of Higher Education Respondents

Title	Men		Women	
	Number	Percent	Number	Percent
Vice President	1	2.9	1	2.9
Dean	4	11.8	1	2.9
Associate Dean	0	--	2	5.9
Assistant Dean	0	--	1	2.9
Department Head or Chairman	8	23.5	6	17.6
Director	19	55.9	12	35.3
Associate Director	1	2.9	1	2.9
Assistant Director	1	2.9	8	23.5
Coordinator	0	--	2	5.9
Totals	34	100%	34	100%

Table 2

College Students, Public School Teachers, Higher Education Administrators' Means in MAS, FEM, SOD, Achievement Motivation, SBI and AWS Measurements, and the Significant Differences Between Sexes Within Each Group in Those Measurements

Measurements		College Students		Public School Teachers		Higher Education Administrators		Total	
		Male (N = 39)	Female (N = 72)	Male (N = 15)	Female (N = 54)	Male (N = 34)	Female (N = 34)	Male (N = 88)	Female (N = 160)
MAS		5.13	4.84*	5.23	5.06	5.47	5.38	5.29	5.05
FEM		4.45	5.14**	4.72	5.19**	4.59	4.88*	4.57	5.09**
SOD		4.98	5.13	5.12	5.25	5.51	5.62	5.21	5.27
Achievement Motivation	C	2.46	2.38	2.50	2.22	2.75	2.34	2.60	2.33*
	M	2.45	2.39	2.58	2.33	2.51	2.87	2.48	2.47
	W	3.46	3.51	3.70	3.44	3.61	3.75	3.54	3.55
	PU	2.71	2.79	2.71	2.76	2.91	3.03	2.76	2.82
SBI		2.57	2.63	2.65	2.54	2.76	2.99	2.65	2.68
AWS		2.25	2.55**	2.40	2.73**	2.42	2.79**	2.34	2.66**

* significant at 0.05 level

**significant at 0.01 level

Table 3

College Students, Public School Teachers, and Higher Education Administrators' Means in MAS, FEM, SOD, SBI and AWS Measurements, and the Significant Differences Between Groups in Those Measurements

Measurements	College Students (N = 111)	Public School Teachers (N = 69)	Higher Education Administrators (N = 68)	Total (N = 248)
MAS	4.94	5.10	5.43**	5.12
FEM	4.90	5.09	4.74**	4.91
SOD	5.08	5.22	5.57**	5.25
SBI	2.61	2.56	2.87**	2.67
AWS	2.45	2.66	2.60**	2.55

**significant at 0.01 level

Table 4

Female Students, Teachers and Higher Education Administrators' Means on Various Measurement Scales and the Significant Differences Between Those Groups

Measurements		College Students (N = 72)	Public School Teachers (N = 54)	Higher Education Administrators (N = 34)	Total (N = 160)
MAS		4.84	5.06	5.38**	5.03
FEM		5.14	5.19	4.88*	5.10
SOD		5.13	5.25	5.62**	5.28
Achievement Motivation	C	2.38	2.22	2.34	2.32
	M	2.39	2.33	2.87**	2.47
	W	3.51	3.44	3.75*	3.54
	PU	2.79	2.76	3.03	2.83
SBI		2.63	2.54	2.99**	2.67
AWS		2.55	2.73	2.79	2.66

* significant at 0.05 level

**significant at 0.01 level

References

1. Arter, M. H. The Role of Women in Administration in State Universities and Land-Grant Colleges. (ERIC ED 086085), 1972.

2. Bakan, D. The Duality of Human Existence. Chicago: Rand McNally, 1966.

3. Bem, S. L. "The Measurement of Psychological Androgyny." Journal of Consulting and Clinical Psychology, 42 (1974), 155-162.

4. Bem, S. L. "Sex Role Adaptability: One Consequence of Psychological Androgyny." Journal of Personality and Social Psychology, 31 (1975), 634-643.

5. Bem, S. L. "On the Utility of Alternative Procedures for Assessing Psychological Androgyny." Journal of Consulting and Clinical Psychology, 45 (1977), 196-205.

6. Bem, S. L. "The Theory and Measurement of Androgyny: A Reply to the Padhazur-Tetenbaum and Locksley-Colten Critiques." Journal of Personality and Social Psychology, 1979, in press.

7. Bem, S. L., and Lenney, E. "Sex Typing and the Avoidance of Cross-Sex Behavior." Journal of Personality and Social Psychology, 33 (1976), 48-54.

8. Bem, S. L., Martyna, W., and Watson, C. "Sex Typing and Androgyny: Further Explorations of the Expressive Domain." Journal of Personality and Social Psychology, 34 (1976), 1016-1023.

9. Cronin, J. M., and Pancrazio, S. B. "Women as Educational Leaders." Phi Delta Kappan, 60 (1979), 583-586.

10. Fishel, A., and Pottker, J. "Women in Educational Governance: A Statistical Portrait." Educational Researcher, 3 (1974), 4-7.

11. Fishel, A., and Pottker, J. "Performance of Women Principals: A Review of Behavioral and Attitudinal Studies." In Fishel and Pottker (Eds.) Sex Bias in the Schools. Cranbury, New Jersey: Associated University Presses, Inc., 1977.

12. Foushee, H. C., Helmreich, R. L., and Spence , J. T. "Implicity Theories of Masculinity and Femininity: Dualistic or Bipolar?" Psychology of Women, 3 (1979), 259-269.

13. Gordon, R. S., and Ball, P. G. "Survival Dynamics for Women in Educational Administration." Journal of the National Association of Women Deans, Administrators, and Counselors, 40 (1977), 45-48.

14. Harris, D. V., and Jennings, S. E. "Achievement Motivation: There is no Fear-of-Success in Female Athletes." Presented at the Fall Conference of Eastern Association of Physical Education of College Women, Hershey, Pennsylvania, October 27, 1978.

15. Mareck, J. "Social Change, Positive Mental Health, and Psychological Androgyny." Psychology of Women, 3 (1979), 241-247.

16. McBee, M. L., Murray, R., and Suddick, D. E. "Self-esteem Differences of Professional Women." Journal of the National Association of Women Deans, Administrators, and Counselors, 39 (1976), 186-189.

17. Oltman, R. M. Campus 1970: Where do Women Stand? Research report on a survey of women in academe. Washington, D.C.: AAUW, 1970. (ERIC ED 046336).

18. Parsons, T., and Bales, R. F. Family, Socialization, and Interaction Process. Glencoe, Ill.: Free Press, 1955.

19. Spence, J. T., and Helmreich, R. L. Masculinity and Femininity: Their Psychological Dimensions, Correlates, and Antecedents. Austin: University of Texas Press, 1978.

20. Spence, J. T., and Helmreich, R. L. "Masculine Instrumentality and Feminine Expressiveness: Their Relationships with Sex Role Attitudes and Behaviors." Psychology of Women, in press.

21. Spence, J. T., Helmreich, R., and Stapp, J. "Ratings of Self and Peers on Sex-Role Attributes and Their Relation to Self-Esteem and Conceptions of

Masculinity and Femininity." Journal of Personality and Social Psychology, 32 (1975), 29-39.

22. Welch, R. L. "Androgyny and Derived Identity in Married Women with Varying Degrees of Non-Traditional Role Involvement." Psychology of Women, 3 (1979), 308-315.

23. Young, C. K. "Women in School Administration and Supervision: A New Leadership Dimension." NASSP Bulletin. 60 (1976), 83-87.

Footnote

This paper was supported by the National Institute of Education, Department of Health, Education, and Welfare (Grant No. NIE-G-79-0012, Project No. 8-1096). However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.